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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/762,055	01/20/2004	Yukisato Kawamura	51767/DBP/A400	7026

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EXAMINER	
VANORE, DAVID A	

ART UNIT	PAPER NUMBER
2881	

DATE MAILED: 06/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/762,055	KAWAMURA, YUKISATO	
	Examiner	Art Unit	
	David A. Vanore	2881	

-- Th MAILING DATE of this communication appears on the cover sh t with the correspondenc address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-11* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-11* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *20 January 2004* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *01/02/04*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Specification

1. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

2. The disclosure is objected to because of the following informalities:

3. Item 101 in the disclosure is mentioned twice to describe two different items. First, in reference to Fig. 8(c) and then again in reference to Fig. 10. Please renumber one of the elements and match said renumbering to the appropriate drawing.

Appropriate correction is required.

4. Applicant is reminded of the proper content of an abstract of the disclosure.

A patent abstract is a concise statement of the technical disclosure of the patent and should include that which is new in the art to which the invention pertains. If the patent is of a basic nature, the entire technical disclosure may be new in the art, and the abstract should be directed to the entire disclosure. If the patent is in the nature of an improvement in an old apparatus, process, product, or composition, the abstract should include the technical disclosure of the improvement. In certain patents, particularly those for compounds and compositions, wherein the process for making and/or the use thereof are not obvious, the abstract should set forth a process for making and/or use thereof. If the new technical disclosure involves modifications or alternatives, the abstract should mention by way of example the preferred modification or alternative.

The abstract should not refer to purported merits or speculative applications of the invention and should not compare the invention with the prior art.

Where applicable, the abstract should include the following:
(1) if a machine or apparatus, its organization and operation;
(2) if an article, its method of making;
(3) if a chemical compound, its identity and use;
(4) if a mixture, its ingredients;
(5) if a process, the steps.

Extensive mechanical and design details of apparatus should not be given.

5. The abstract of the disclosure is objected to because the abstract is a restatement of claim 1. Correction is required. See MPEP § 608.01(b).

Drawings

6. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "101" has been used to designate both an item in Fig. 8(c) and Fig. 10. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Information Disclosure Statement

7. The information disclosure statement (IDS) submitted on January 20, 2004 is being considered by the examiner.

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claims 1-8 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Yahiro et al. (USPN 6,204,509).

10. Regarding claims 1-8, Yahiro et al. teaches an electron beam adjusting device and method of use comprising the following:

11. An aperture which imparts lengths to an electron beam passing there-through (Item 35).

12. A measuring system (Item 25b for example), and Item 16 which detects and measures length components of an electron beam in two different dimensions, as depicted in Fig. 4(a) for example.

13. A memory unit (Item 16) which memorizes correcting and calibrating information regarding .

14. A comparing means (Item 16a) comprising an arithmetic unit which compares the electron beam state, comprising the at least two measured lengths, to correct a degree of parallelism (Fig. 4A) or astigmatism (Fig. 4C).

15. A calibrating and correcting portion for calibrating or correcting the X and/or Y component of a measured astigmatism (Item 18 controls the deflectors (Item 8 responsible for astigmatism errors).

16. A calibrating and correcting portion for calibrating and correcting parallelism (Item 17 drives lens Item 4 under control of Item 16 which calibrates and corrects based on measured and compared lengths of an electron beam.

17.

Claim Rejections - 35 USC § 103

18. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

19. Claims 9-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yahiro et al. (USPN 6,204,509) in view of Utsumi (USPN 6,717,157).

20. Yahiro et al. teaches all required limitations of claims 1-8 as pointed out above.

21. Yahiro et al. fails to teach or suggest an electron beam measuring system comprising a fluorescent plate and a CCD image sensor.

22. Utsumi teaches a charged particle device of similar configuration to the instant invention where the means for capturing an image of an electron beam is carried out using a fluorescent plate to convert electrons into photons, which are detected by CCD (Item 96).

23. Utsumi modifies Yahiro et al. to employ a fluorescent plate and associated CCD image sensor to capture an image of an electron beam.

24. It would have been obvious to one having ordinary skill in the art at the time the invention was made to use a fluorescent plate and a CCD image sensor as taught in Utsumi as a measurement system because Utsumi at least teaches that such a measurement system enables the image capturing of an image showing the whole mask pattern, enabling capture of more information at once.

25. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yahiro et al. in view of Muraki (USPN 6,107,636).

26. Yahiro et al. teaches all required limitations of claims 1-8 as pointed out above.

27. Yahiro et al. fails to teach or suggest an electron beam measuring system comprising a Faraday cup having a knife edge, the Faraday cup having a moving portion, and a profile generator for generating an intensity profile of a detected electron beam by said Faraday cup.

28. Muraki teaches an electron beam measuring system comprising a Faraday cup having a knife edge, the Faraday cup having a moving portion, and a profile generator for generating an intensity profile of a detected electron beam by said Faraday cup, Fig. 1 Items 10-12, and Col. 11 Lines 37-50.

29. Muraki modifies Yahiro et al. to employ a an electron beam measuring system comprising a Faraday cup having a knife edge, the Faraday cup having a moving portion, and a profile generator for generating an intensity profile of a detected electron beam by said Faraday cup.

30. It would have been obvious to one having ordinary skill in the art at the time the invention was made to make the above noted modification regarding the Faraday cup because the use of such an electron detection system is well known in the art as an effective tool for accurately detecting an electron beam.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David A. Vanore whose telephone number is (571) 272-2483. The examiner can normally be reached on M-F 7:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John R. Lee can be reached on (571) 272-2477. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

5/1/06

David A Vanore
Patent Examiner
Art Unit 2881

dav